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THE "FALL BREEDING" PROBLEM IN RABBITS

by

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Spring is the natural breeding season for the rabbit. Does settle readily at this time but the percentage of conceptions decreases during the summer and early fall and increases during the late fall and early winter. In the experimental herd at the Fontana station, the highest percentage of conceptions is in April and the lowest in September. All breeders, especially those engaged in commercial production, are intensely interested in the factors that are responsible for their does failing to produce during the fall. At this season fryers are scarce and prices are favorable. The problem is not confined to a given herd or to a local condition, but is prevalent throughout the country.

There is a marked variation with individual rabbits, and among herds, as to the duration of the barren period. Some does and bucks are fertile throughout the year for successive years, while a large majority go through periods of four, six, eight, or ten weeks when the does will not conceive. The production for the herd drops materially during the fall months, usually August, September, and October, and extreme cases have been encountered where no young were produced by a herd for four to five months. In view of the fact that there is so much variation in does and bucks through the year, with respect to breeding, a breeder may well consider this factor very carefully in selecting his future breeding stock and make his choice from the offspring of parents that conceive regularly.

The ration and method of caring for the herd through the year have a direct bearing on the problem. If the herd has been properly cared for, the majority of the bucks and does should complete the barren period in from four to ten weeks. Extreme cases of no young being produced for four to five months are usually due to the herd being out of condition because their ration has been inadequate in quality, quantity, or both. Feeding a balanced ration to the individual rabbits of a proper quantity to maintain the desired breeding condition will help make it possible for the rabbit to produce at its inherent rate.

The specific cause of the fall breeding problem is not known. Many physiological factors are involved in the reproductive processes and may be influenced, directly or indirectly, by environmental temperatures, number of daylight hours, nutrition, disease, age, etc. Scientific evidence indicates that

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the ovaries of the does may become inactive during the barren period and may fail to produce normal egg cells; in some cases the ovaries are shriveled. There is also evidence that the quantity and quality of sperm produced by the buck may be lowered during this season of reduced reproductive activity. On the other hand, there is evidence to show that egg and sperm production are normal but fertilization of the egg does not take place, or if it does take place, the eggs fail to develop in the uterus. The entire process is highly complicated and dependent upon nervous and hormonal relationships which apparently operate at a peak of efficiency in the spring months and at a minimum of efficiency in the fall months.

If lowered reproductive activity and production are due largely to the does' refusal to accept the buck, some help may be obtained by restraining the doe for mating. In restraining the doe, the right hand is used to hold the ears and a fold of skin over the shoulders; the left hand is placed under her body and between the hind legs. The thumb is placed on the right side of the vent, the index finger on the left side, and the skin is pushed gently backward. This procedure throws the tail up over the back. The weight of the body is supported by the left hand and the rear quarters are elevated only to the normal height for mating. Bucks accustomed to being handled will not object to such assistance by the breeder. It is well also to hold the doe in this way for the first few times that a young buck is used. This practice will expedite matings and improve conception rates.

It must be recognized that some instances of failure to conceive may be due to infections of the uterus, retained fetus, or some organic conditions which are interfering with normal egg and sperm production. However, most cases of nonproductive mating during the fall season are due to the fact that the doe, the buck, or both are in a seasonal barren period.

There are certain herd management practices which will assist the breeder in obtaining optimum production throughout the year and save him time and labor. They can be listed as follows:

Select future breeding stock from parents that produce regularly throughout the year and that are consistent producers year after year.

Feed the herd a balanced ration and regulate the quantity fed to the individual rabbit to assure his being in a desirable breeding condition.

To save time and labor in breeding, place the doe in the buck's hutch for a reasonable length of time and if mating does not occur restrain the doe for service.

Palpate the doe twelve to fourteen days after mating to determine pregnancy. If she has not conceived, return her at once to the buck's hutch for service.

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